ISSUE 21 SPRING **2017**

A STORMWATER MANAGEMENT **DIVISION PUBLICATION**

MORE INFO

THIS ISSUE

- P.1 Celebrate Earth Day
- P.2 Are you Building a New Deck P.4 Don't Miss the 2017
- Hillsborough Street
- P.3 Why an Easement is Necessary
- P.3 Raleigh's Rain Garden Along P.4 Stormwater Volunteer Profile



The City of Raleigh

URBAN WATERSHEDS



Volunteer & Make a Difference

In 2016, City of Raleigh volunteers accomplished the following:

- More than 20 volunteer groups collected 6,000 pounds of trash.
- 200 storm drains were marked to bring awareness to keeping drains free of debris and trash.
- 10 volunteers monitored stream water quality at six different watersheds.
- 4,000 pounds of waste from eight sites were cleaned up in Raleigh alone through Wake County's 2016 Fall Big Sweep.

Would you like to volunteer? Call 919-996-3940 or email StormwaterVolunteers@raleighnc.gov.

Celebrate Earth Day with Raleigh's Stormwater **Management Division**

To celebrate Earth Day (April 22), City of Raleigh's Stormwater Management Division will be offering and participating in several outreach/volunteer events. These programs will teach residents about stormwater and how pollutants in stormwater runoff can impact Raleigh's waterways:

Rain Garden & Rain Barrel Workshop

This is the first rain garden/rain barrel workshop provided by the City of Raleigh. It will be held on Saturday, March 4 at the Walnut Creek Wetland Center, 950 Peterson Street. Space is limited, so please register at reclink.raleighnc.gov (Enter code: 201375). To learn more about this workshop and others like it, contact Lory Willard at Lory.Willard@raleighnc.gov.

Creek Connections: Walnut Creek Watershed and the Nile River Basin

The Stormwater Management Division will be at Creek Connections on Sunday, March 19 at the Walnut Creek Wetland Center, 950 Peterson Street. This event explores common themes of community, environment, and social equity of Raleigh's Walnut Creek Watershed and Africa's Nile

River. Stop by between 2 p.m. and

4 p.m. to learn more.

EnviroScape Events

See firsthand how pollutants, like trash, animal waste, yard clippings, and fertilizer can contaminate stormwater that goes into streams and lakes. These events are by reservation only. If you would like an EnviroScape demonstration done at a school or community event in Raleigh, contact Carmela Teichman at Carmela. Teichman@raleighnc.gov.

Foster-a-Stream

The City's Foster-a-Stream spring event will be held on Saturday, April 1 from 8:30 a.m. to 11 a.m. at Southgate Park, 1801 Proctor Street. Help us reach our goal of picking up 100 pounds of trash by spending the morning outdoors with City staff cleaning up the stream at Southgate Park. Interested in attending? Visit <u>raleighnc.gov</u> for more information.



A rain garden on a residential property. Credit: Tetra Tech.

More Volunteer Opportunities...



Volunteers at a stream cleanup.

Volunteer Stream Monitoring Workshop

Join City staff on Saturday, April 29, for the volunteer stream monitoring workshop at the Walnut Creek Wetland Center, 950 Peterson Street, to learn how you can play a role in keeping Raleigh's waterways clean. The workshop is from 10 a.m. to 12:30 p.m. For more information, visit <u>raleighnc.gov</u>.

Mud Festival

The Walnut Creek Wetland Center (950 Peterson Street) will be hosting the region's first Mud Festival on Saturday, June 3, to celebrate wetlands and one of their most important features: mud! The Stormwater Management Division will be offering a creek walk for festivalgoers. Call the Walnut Creek Wetland Center for event details at 919-996-2760.

Are you Building a New Deck or Addition to Your House?

You may need to consider stormwater measures in the construction of your new deck or home addition, which are now <u>required for smaller site development</u> in order to successfully complete the City's permitting process.

Impervious Surface Limitations

Here is what you need to know if you meet or exceed the limits based on the amount of impervious surface – material that prevents natural runoff of stormwater – created by your development or redevelopment:

<u>Meet Limitations</u>: You will need to provide a tracking permit, which was recently made more affordable, and an as-built impervious survey prior to final inspection.

Exceed Limitations: You will need a tracking permit and an as-built survey along with either a stormwater analysis to show there will be no impact to downstream properties or install a volume control stormwater device to reach compliance. If you install a stormwater device, you will also need to provide an annual inspection report summary and certification from a licensed professional.

What Else is Needed to Receive a Permit

A sealed survey showing the amount of impervious surface currently on the property (supplemental drawings are accepted in addition to the survey).

The proposed total amount (current plus new) of impervious surface resulting from redevelopment or new development of your deck or addition.

The new requirements allow the City to determine whether proposed projects will increase impervious surface area and impact properties downstream. These efforts not only reduce flooding during and following development, it ensures that residents remain safe and waterways remain healthy. Do you have more questions? Look at the <u>FAQs</u> available online or call 919-996-3940 or email <u>RaleighStormwater@raleighnc.gov</u>.



This Spring Stop by Raleigh's Rain Garden Along Hillsborough Street

The City of Raleigh's Roadway Design and Construction Division will soon finalize the construction of a rain garden on Hillsborough Street, which is part of the City's overarching <u>revitalization project</u> for the entire street. This is one of the first urban rain gardens along a city street in Raleigh.

Rain Garden Benefits

Typically, stormwater control measures, like rain gardens, are constructed in greenways, parks, schools, and other areas with good soil for vegetation growth. Today, with advancements in green infrastructure and low impact development (GI/LID), rain gardens are being placed directly in urban settings.

This is especially beneficial in the city's downtown area, which has more impervious surfaces or areas that do not allow stormwater to soak into the ground. An urban rain garden helps offset the impact large amounts of impervious area can have on water quality and stream flooding.



Hillsborough Street rain garden under construction.

The rain garden will also provide outdoor seating for residents with a design that incorporates old train rails used for public safety and city beautification. To learn more about rain gardens and their benefit to water quality, visit <u>raleighnc.gov</u>.

What's an Urban Rain Garden?

An urban rain garden is planted vegetation that captures pollutants from rainwater before it goes into storm drains that lead directly to lakes and streams. On Hillsborough Street, the urban rain garden is between Dan Allen Drive and Friendly Drive. It will reduce the amount of pollution going into Rocky Branch and streams that run through North Carolina State University and Pullen Park.

Why an Easement is Necessary for Stormwater Projects

Have you experienced a drainage concern on your property that the City of Raleigh needed to handle? If so, you've probably signed an easement granting City staff and contractors access to a specific area of your property to make stormwater repairs or improvements. Easements are typically acquired for projects related to the City's <u>Drainage Assistance Program</u> and <u>Capital Improvement Program</u>.

Here's what you can expect if you have never completed an easement acquisition:

- Once an easement is received, City staff will use permissions from the property owners to make the necessary drainage improvements;
- The easements can be both temporary (for construction access) and/or permanent (i.e.: permanent drainage easements for lifelong maintenance of new infrastructure);
- Easements are only used on private property they are not necessary for projects in the right-of-way or areas that are considered public property;
- Signing an easement does not mean you are giving away your property. You are only allowing City staff to go on your property for a specific project;



A completed project to address flooding at a Temple Street property.

- · Easements are an important aspect of addressing drainage concerns projects cannot be completed without them; and,
- Using an easement ensures that drainage improvements are done effectively and continue to work properly so that residents do not experience ongoing drainage issues.

If you have any questions about easements related to stormwater projects, contact the division at 919-996-3940 or RaleighStormwater@raleighnc.gov.

Stormwater Volunteer Profile: Ernie Hahn

Read what stormwater volunteer, Ernie Hahn, has to say about his experience with the Stream Monitoring Program:

SW: How long have you volunteered with the City of Raleigh?

EH: I've been a volunteer since 2011.

SW: Why did you become a volunteer?

EH: I heard about the Stream Monitoring Program through a friend of mine who is a biologist. Her profession and my curiosity about what lives in the stream behind my office, which I monitored, sparked my interest in the program.

SW: Why do you think volunteering for programs like this is important?

EH: Introducing people to the basics of water quality helps the public to appreciate the work of scientists and how those efforts benefit residents.

SW: What do you like most about volunteering?

EH: There is always a sense of pride when small actions of volunteers help create something much bigger for the entire community.

SW: What advice do you have for those interested in volunteering in the future?

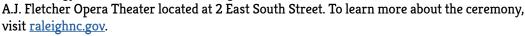
EH: Don't worry about getting everything perfect, but do your best to provide the most accurate data when monitoring a stream. Every effort counts. And of course, have fun!



Don't Miss the 2017 **Environmental Awards**

Did you submit a 60-second video teaching residents about the connection between pollution and water quality of Raleigh's lakes and steams? Don't miss the Office of Sustainability's 10th Environmental Awards on Tuesday, April 25, where the Streams and Stormwater Video Competition winners will be announced.

The Environmental Awards will be held at Duke Energy Center for the Performing Arts'





THE STORMWATER MANAGEMENT MISSION

Manage stormwater to preserve and protect life, support healthy natural resources, and complement sustainable growth within a vibrant community.

Contacting the Stormwater Management Division

General Inquires Stormwater Fee Inquiries Reporting Illegal Discharge Sedimentation and Erosion Control; Floodplain; and Drainage Assistance **Private Property Inquires** Street Drainage Assistance Volunteer Inquires

919-996-3940 or StormwaterFee@raleighnc.gov StormwaterFee@raleighnc.gov IllegalDischarge@raleighnc.gov

RaleighStormwater@raleighnc.gov

919-996-6446 (Transportation Field Services) StormwaterVolunteers@raleighnc.gov

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